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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,230	06/14/2001	Richard T. Shoemaker	RD8030 US NA	7555
23906	7590	12/03/2003	EXAMINER	
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			SALVATORE, LYNDIA	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/881,230

Applicant(s)

SHOEMAKER ET AL.

Examiner

Lynda M Salvatore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7,9-11 and 13-23 is/are pending in the application.
4a) Of the above claim(s) 13-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3,5-7,9,10,11,22,23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

1. Applicant's amendments and accompanying remarks filed August 26th, 2003 have been carefully considered and entered. Claims 4,8, and 12 have been canceled, claims 1 and 9 have been amended and new claims 22 and 23 have been added as requested. Applicant's cancellation of claim 4 renders moot the rejection under 35 U.S.C. 103(a) as being unpatentable over Mills et al., US 5,447,771 as set forth in section 10 of the last Office Action. Applicant's amendments to claim 1 is found sufficient to overcome claims 1-3 and 5-12 rejected under 35 U.S.C. 102(b) as being anticipated by Mills et al., US 5,447,771 as set forth in section 8 of the last Office Action. As such, this rejection is withdrawn. Despite this advance, however, Applicant's amendments are not found to patently distinguish the claims over the prior art of record and Applicant's arguments are not found persuasive of patentability. Accordingly, a necessitated new grounds of rejection is set forth herein below.

Election/Restrictions

2. Applicant's election without traverse of Group I (claims 1-12) as set forth in last Office Action is acknowledged.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-3, 5-7,9,10,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al., US 5,447,771, in view of Smith et al., US 3,852,946.

Applicant amended claims 1 and 9 to recite the limitation of a yarn denier ranging between about 15 and 200 and argues that Mills et al., fails to teach using such a low denier yarn in the various applications disclosed (i.e., carpet, textile, or non-woven uses). Applicant further argues that Mills et al., fails to teach a yarn useful in apparel fabrics having a high moisture-wicking capability, combined with a soft hand and a silk-like lustrous appearance (Applicant's response, spanning pages 5 and 6). These arguments are not found persuasive. With regard to Applicant's assertion that Mills et al., fails to teach an apparel fabric having a high moisture-wicking capability, combined with a soft hand and a silk-like lustrous appearance, the Examiner would like to point out the fact that Applicant is not claiming such an article. Rather, the Applicant is merely claiming a yarn and fabric formed therefrom. Additionally, even if Applicant were claiming such an article, said limitations (i.e., an apparel fabric having a high moisture-wicking capability, combined with a soft hand and a silk-like lustrous appearance) would constitute an intended use and would not be given patentable weight if it can be shown that the prior art meets the chemical and structural limitations set forth. As such, it is the position of the Examiner that there is nothing on record to evidence that the articles produced by Mills et al., having the claimed structure and chemistry could not function in the desired capacity. Thus, the burden is therefore shifted to Applicant to evidence the contrary. With regard to the newly added denier range limitations, the following rejection is set forth below.

The patent issued to Mills et al., teaches a filament having a substantially flat-sided rectangular-shaped central segment, arms and lobes, which further includes curved tip portions extending from each end of the central segment in opposite directions. The arms are connected to the central segment such that the angle formed between each of the arms and central segment is

from 105 to 165 degrees. Mills et al., teaches that this orientation gives rise to the distinctive bilobal S or Z shapes (Column 4, 48-60). The denier per filament ranges from 3 to 30 (Column 5, 29-30). The filaments may be blended with each other or with other filaments having varied cross-sections. Preferably, the yarn comprises a blend of 40 to 60% by weight of S shaped filaments and 60 to 40% by weight of Z shaped filaments (Column 5, 18-25). Mills et al., further teaches a carpet fabric comprising a mixture of 20 to 80% multifilament yarns having a trilobal cross section and 80 to 20% multifilament yarns comprising a blend of Z and S shaped filaments (Column 5, 35-40). Suitable filament forming materials include thermoplastic polymers such as nylon 6, 6 (Column 3, 15-20). The filaments are also suitable in applications other than carpet manufacturing such as in textile or non-woven fields (Column 5, 15-17).

Mills et al., fails to teach a yarn having a denier range of 15 to 200, however, the patent issued to Smith et al., teaches voluminous yarns having improved hand, feel, and appearance (Column 1, 34-36). The voluminous yarns taught by Smith et al., are employable for a variety of uses such as a commercial carpet yarn (Column 2, 1-5). Suitable yarn forming materials include nylon, polyethylene terephthalate, and polyolefins (Claims 5 and Column 8, 10-21). Smith et al, teaches that the novel yarn, which is excellent as the pile for carpeting, generally have a total denier ranging from *100 or less* to 3,000 or more (Column 8, 25-30).

Therefore, motivated by the improved hand, feel, and appearance it would have been obvious to one of ordinary skill in the art to employ the teachings of Smith et al, and form the carpets of Mills et al., with yarns having a total denier ranging from 15-200.

5. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al., US 5,447,771, in view of Smith et al., US 3,852,946 as applied to claims 1 or 9 and further in view of Abel et al., US 4,071,468.

The combination of Mills et al., and Smith et al., fails to teach applying a wetting agent to the filaments, however, it is commonly known in the art to employ wetting agents to various textile substrates. For example the patent issued to Abel et al., teaches a wetting and anti-foaming agent comprising up to 30 weight percent silicone oil for the purpose of variety of finishing and dying processes (Abstract and Column 7, 58- Column 8, 10). Specifically, wetting agents are employed to provide substrates with oil, water, and dirt repellency (Column 8, 1-8). Such repellencies are commonly known in the art and are typically found in carpets. In addition, in example 9, Abel et al., teaches a low foaming wetting agent particularly suited for carpet continuous dying (Column 14, 14-16).

Therefore, motivated by the wetting agent's ability to facilitate textile finishing and dying processes it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the teachings of Abel et al., and apply a wetting agent to finish the carpet of Mills et al., and Smith et al.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

November 29, 2003

lsj


CHERYL A. JUSKA
PRIMARY EXAMINER